

Title: Minimum Success Criteria for Wetland Compensatory Mitigation

Identification Number: Water-010-NPD

Date Originally Effective: September 8, 2006

Dates Revised: None

Other Policies Repealed or Amended: None

Brief Description of Subject Matter: A wetland compensatory mitigation site must meet or exceed these minimum performance standards before IDEM will find that a wetland compensatory mitigation site is complete and offsets the loss of wetlands authorized by a permit or certification.

Citations Affected: [327 IAC 17-1-5](#), [IC 13-18-22-6\(b\)](#)

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Background

IDEM, in each approval requiring wetland compensatory mitigation, assigns a set of performance standards. These performance standards are often referred to as "success criteria." The applicant monitors the mitigation site for a period of years, comparing the performance of the mitigation site to the success criteria. If, at the end of the monitoring period, the site meets or exceeds all of the success criteria, the mitigation site is determined to be complete, and no further monitoring is required. If, at the end of the monitoring period, the site fails to meet one or more of the success criteria, then IDEM requires corrective action (e.g., replanting, outfall maintenance, relocation, etc.) and additional monitoring to verify the effectiveness of the corrective action.

In an attempt to increase consistency, IDEM incorporated minimum success criteria in its approval templates. These minimum success criteria appear to work in most cases, though there have been unusual situations that have necessitated customized success criteria.

Policy Resolution

A mitigation plan shall contain, at a **minimum**, the following provisions. IDEM may require additional site specific success criteria for individual authorizations, but may not require additional site specific success criteria for mitigation required by a general permit under [327 IAC 17-2](#) or [327 IAC 17-3](#). IDEM may allow deviations from these minimum success criteria on a case-by-case basis for individual authorizations if IDEM finds that the site-specific conditions warrant such deviations. IDEM will not allow deviations from these minimum success criteria for general permits under [327 IAC 17-2](#) or [327 IAC 17-3](#).

Before IDEM will find that a wetland compensatory mitigation site is complete and offsets the loss of wetlands authorized by a permit or certification, the applicant must monitor the mitigation wetland for a minimum period of three continuous years. If the site(s) does not meet the success criteria for two consecutive years in this three year period then the applicant will monitor the site(s) for an additional two years for a total of five years. For IDEM to release the mitigation site from this monitoring requirement, the permittee must demonstrate to IDEM, through their monitoring reports, that the site(s) meet or exceed the success criteria for at least two consecutive years. If the site(s) fails to meet the success criteria for at least two consecutive years within a five year period then corrective actions will be required. These corrective actions may include additional grading, planting, relocation, or other actions deemed necessary by IDEM to meet the success criteria. Corrective actions often include extended monitoring to verify the effectiveness of the corrective action. Extended monitoring may constitute the sole corrective action if IDEM believes that the site needs more time to meet the success criteria. Once the permittee believes the site meets or exceeds all of the minimum success criteria listed below, the permittee may submit a proposed final monitoring report to IDEM and suspend monitoring. If IDEM confirms that the mitigation site meets or exceeds all of the success criteria, then IDEM shall notify the permittee that the mitigation is complete and that the permittee may permanently discontinue monitoring.

Minimum Success Criteria

The permittee shall ensure that the mitigation wetland meets all of the following success criteria for at least two consecutive years:

- a. The area of wetland established, as measured by a wetland delineation, must meet or exceed the area of

wetland compensatory mitigation required.

b. The class of the wetland actually established meets or exceeds the "replacement class" used to calculate the wetland compensatory mitigation area required under [327 IAC 17-1-5\(a\)](#).

c. If the impact wetland was a rare and ecologically important type under [327 IAC 17-1-3\(3\)\(B\)](#), then the wetland actually established is the same rare and ecologically important type as the impact wetland.

d. If the impact wetland was NOT a rare and ecologically important type under [327 IAC 17-1-3\(3\)\(B\)](#), then the wetland actually established is the same "Cowardin et al. Class¹" as the impact wetland.

e. Greater than 50% of the dominant vegetation species must have a wetland indicator² of FAC (i.e., facultative) or wetter.

f. The hydrology at the mitigation wetland site must meet the wetland hydrology criteria contained in the United States Army Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1 (January, 1987).

g. The combined surface areal coverage of *Phalaris arundinacea* (reed canary grass) and *Typha* spp. (cattail) shall not exceed 15% of the mitigation wetland.

h. The mitigation wetland is free of the following exotic species: *Lythrum salicaria* (purple loosestrife), *Phragmites australis* (common reed), and *Myriophyllum spicatum* (water milfoil).

i. Native plant species excluding *Typha* spp. (cattail) must have an areal cover of at least:

1. 70% in saturated tree, shrub, sedge meadow, or wet prairie communities.
2. 50% in inundated tree or shrub, and shallow emergent communities.
3. 30% in deep emergent communities. Average water depth > 8 inches.
4. 10% in floating aquatic communities. Average water depth > 1.5 feet.

j. No more than 10% of the surface area coverage of the mitigation wetland may be open water, bare ground, or a combination of the two. Open water and bare ground are defined as areas with less than 10% areal vegetative cover.

k. For forested areas, the average density of live individuals of tree species shall be between 200 and 436 stems per acre.

l. For forested and shrub areas, the average density of live individuals of shrub and vine species shall be between 436 and 1,210 stems per acre.

Explanation

These success criteria provide IDEM with a benchmark against which IDEM can measure the performance of mitigation attempts. The success criteria tell IDEM which mitigation sites are accomplishing their goals and which need corrective action. Without success criteria, IDEM cannot assure that compensatory mitigation required through the permitting program will offset the loss of isolated wetlands as required by Indiana State Law under [IC 13-18-22-1\(c\)](#). Having clear information on IDEM's success criteria in applicants' hands before they plan their projects will allow applicants to plan accordingly, improve the quality of applications, and decrease the time required by IDEM to reach a decision. Having clear information on success criteria in staff's hands will improve consistency of IDEM's decisions and decrease the time required by IDEM to reach a decision.

¹Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. Office of Biological Services, Fish and Wildlife Service, U.S. Department of the Interior. FWS/OBS-79/31.

²USFWS. 1988. National List of Plant Species that Occur in Wetlands: North Central (Region 3). U.S. Department of the Interior. Biological Report 88(26.3).

Posted: 10/04/2006 by Legislative Services Agency
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